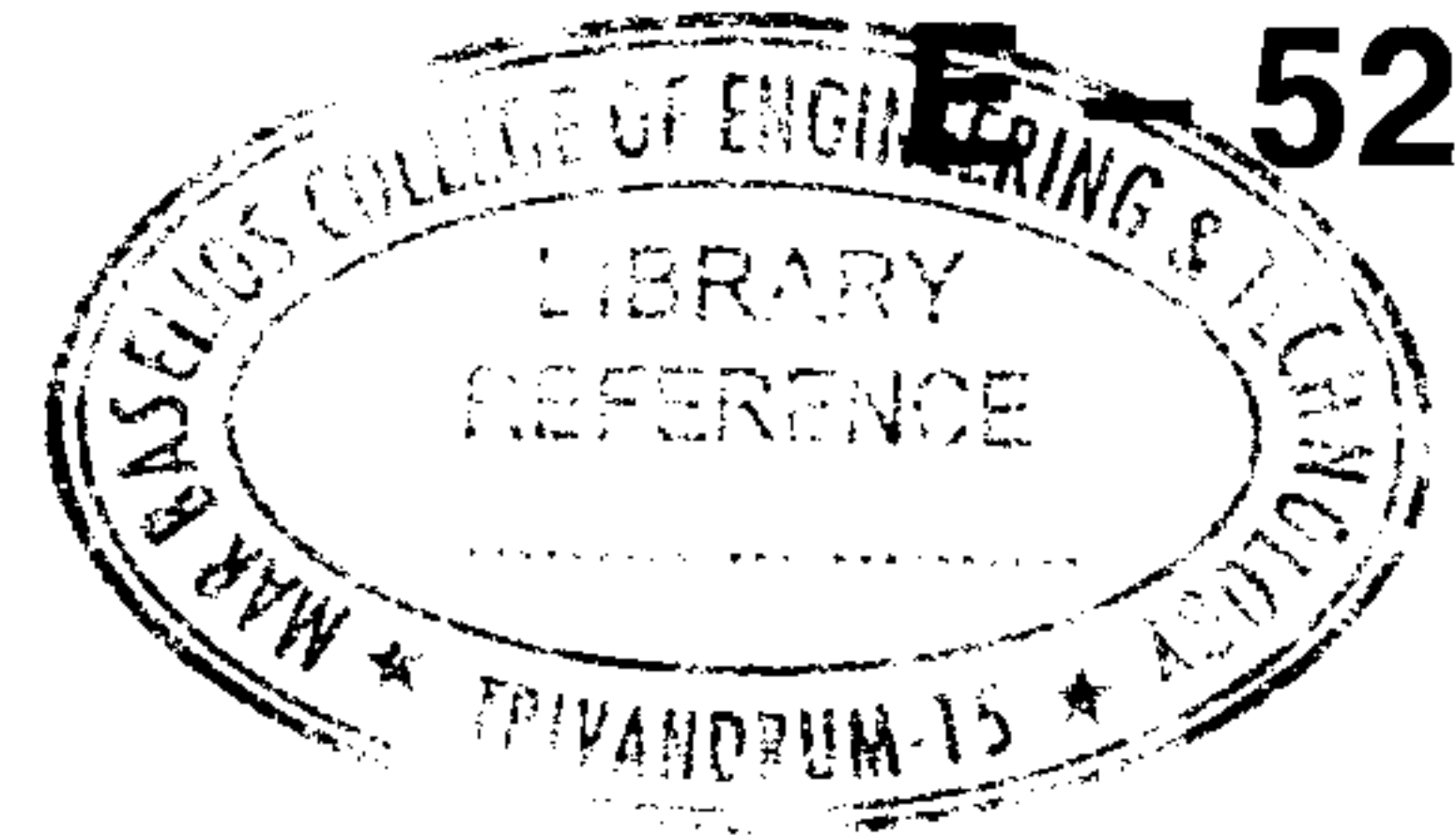




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Reg. No. :

Name :

**Seventh Semester B.Tech. Degree Examination, October 2018
(2013 Scheme)**

**13.701 : PRINCIPLES OF MANAGEMENT AND DECISION MODELING
(MPU)**

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **2** marks.

1. What do you mean by 'system' concept of management ?
2. Mention the five phases involved in the process of delegation.
3. List the limitations of sole proprietorship.
4. Compare rural and urban sites for locating a plant.
5. When will you prefer a fixed position layout ?
6. Distinguish between recruitment and selection.
7. Point out the need for demand forecasting.
8. Enumerate the general guidelines to be followed for effective decision making.
9. Define Saddle point.
10. What are the advantages of simulation ?

(10×2=20 Marks)

PART – B

Answer **any one full** question from **each** Module.

Module – I

11. a) Enumerate the Fayol's 14 principles of management. **10**
b) Briefly explain the features of joint stock companies. **10**
12. With the help of an organisational chart, discuss in detail about the line and staff organisations in terms of their characteristic features, advantages and limitations. **20**

P.T.O.



Module – II

13. Discuss in detail about the various factors affecting the choice of plant location. 20
14. Give a detailed account of the various types of interviews conducted in present days. 20

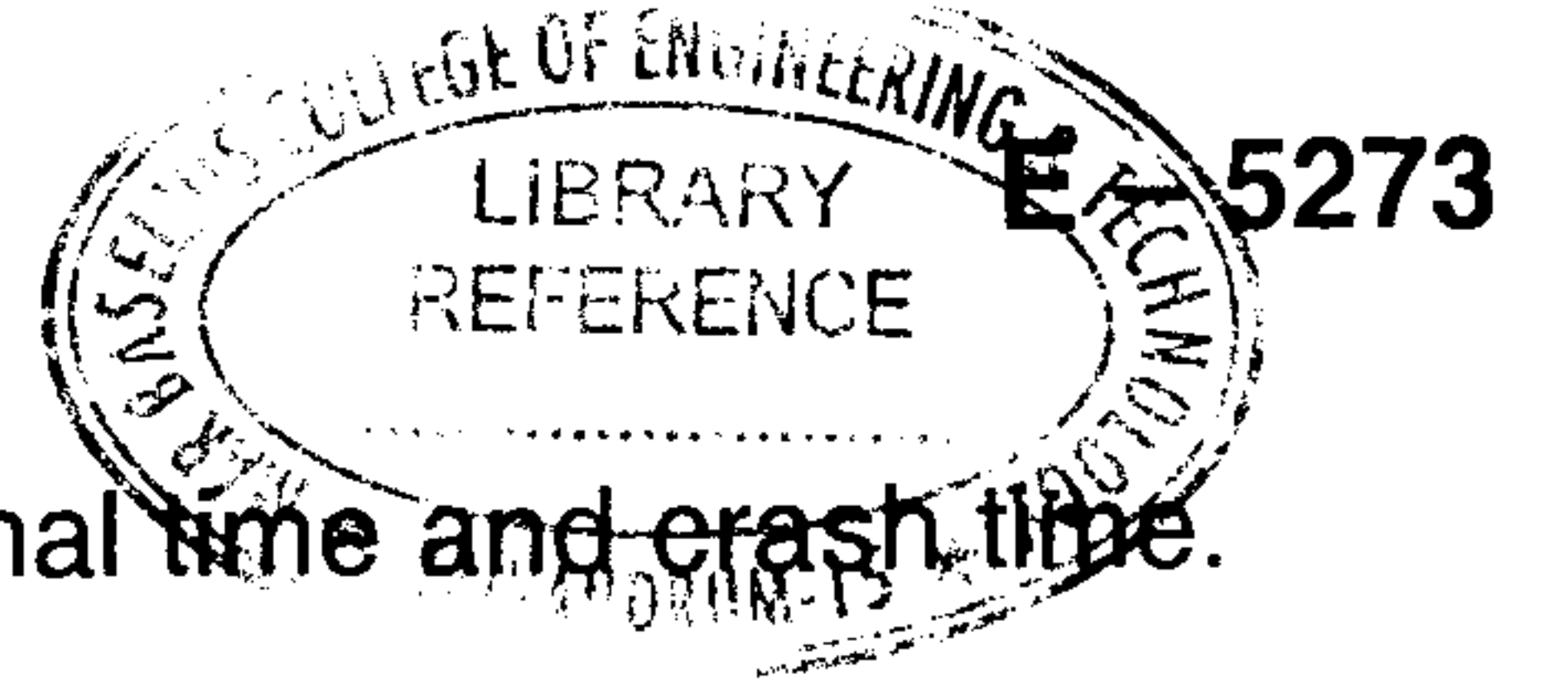
Module – III

15. a) Briefly explain the various functions handled by sales management group. 10
 b) Give a brief account of different methods coming under the broad category of judgemental techniques of forecasting. 10
16. a) Write short notes on the various modern techniques/approaches available for decision making under uncertainty. 10
 b) Solve the following transportation problem using Vogel's approximation method. 10

		Destination				Supply
		A	B	C	D	
Source	I	11	20	7	8	50
	II	21	16	20	12	40
	III	8	12	18	9	70
Demand		30	25	35	40	

Module – IV

17. a) In a game of matching coins with two players, suppose A wins one unit value when there are two heads, wins nothing when there are two tails and losses $\frac{1}{2}$ unit value when there are one head and one tail. Determine the payoff matrix, the best strategy for each player and the value of the game. 10
- b) Cars arrive at a petrol pump, having one petrol unit, in Poisson fashion with an average of 10 cars per hour. The service time is distributed exponentially with a mean of 3 minutes. Find i) average no. of cars in the system. ii) average waiting time in the queue. iii) average queue length. iv) the probability that the number of cars in the system is 2. 10



18. The following data is pertaining to a project with normal time and crash time.

Job	Normal		Crash	
	Time (days)	Cost (Rs.)	Time (days)	Cost (Rs.)
1 - 2	8	100	6	200
1 - 3	4	150	2	350
2 - 4	2	50	1	90
2 - 5	10	100	5	400
3 - 4	5	100	1	200
4 - 5	3	80	1	100

- a) If the indirect cost is Rs. 100 per day, find the least cost schedule (optimum duration).
- b) What is the minimum duration ?

